

PHOTODEGRADATION-RESISTANT ELECTRODEPOSITABLE COATING  
COMPOSITIONS AND PROCESSES RELATED THERETO

ABSTRACT

5           The invention provides a process for coating a substrate including  
electrodepositing an electrodepositable composition on the substrate, heating the  
coated substrate to cure the coating thereon, applying over the cured  
electrodeposited coating one or more pigment-containing coating compositions  
and/or one or more pigment-free coating compositions to form a top coat thereover,  
10   and heating the coated substrate to cure the top coat. The electrodepositable  
composition is formed from an ungelled cationic salt group-containing resin where  
the salt groups are formed from pendant and/or terminal amino groups, and an at  
least partially blocked aliphatic polyisocyanate curing agent. Also provided is a  
photodegradation resistant multi-layer composite coating of a primer layer formed  
15   from the electrodepositable composition and a top coat thereover, where the  
composite coating exhibits substantially no interlayer delamination upon  
concentrated solar spectral irradiance exposure equivalent to two years outdoor  
weathering. The invention further provides improved processes for  
electrophoretically coating a substrate.